until a release is initiated after a period which is no less than three minutes. If the retest is performed at the car(s) being retested with a suitable device, the compressed air in the car(s) shall be depleted prior to disconnecting the hoses between the car(s) to perform the retest:

- (5) For cars equipped with 8½-inch or 10-inch diameter brake cylinders, piston travel shall be within 6 to 9 inches. If piston travel is found to be less than 6 inches or more than 9 inches, it must be adjusted to nominally 7½ inches. For cars not equipped with 8½-inch or 10-inch diameter brake cylinders, piston travel shall be within the piston travel stenciled or marked on the car or badge plate. Minimum brake cylinder piston travel of truck-mounted brake cylinders must be sufficient to provide proper brake shoe clearance when the brakes are released. Piston travel must be inspected on each freight car while the brakes are applied:
- (6) Brake rigging shall be properly secured and shall not bind or foul or otherwise adversely affect the operation of the brake system;
- (7) All parts of the brake equipment shall be properly secured. On cars where the bottom rod passes through the truck bolster or is secured with cotter keys equipped with a locking device to prevent their accidental removal, bottom rod safety supports are not required; and
- (8) When the release is initiated by the controlling locomotive or yard test device, the brakes on each freight car shall be inspected to verify that it did release; this may be performed by a "roll-by" inspection. If a "roll-by" inspection of the brake release is performed, train speed shall not exceed 10 MPH and the qualified person performing the "roll-by" inspection shall communicate the results of the inspection to the operator of the train. The operator of the train shall note successful completion of the release portion of the inspection on the record required in paragraph (d) of this section.
- (d) Where a railroad's collective bargaining agreement provides that a carman is to perform the inspections and tests required by this section, a carman alone will be considered a quali-

fied person. In these circumstances, the railroad shall ensure that the carman is properly trained and designated as a qualified person or qualified mechanical inspector pursuant to the requirements of this part.

- (e) A railroad shall notify the locomotive engineer that the Class I brake test was satisfactorily performed and provide the information required in this paragraph to the locomotive engineer or place the information in the cab of the controlling locomotive following the test. The information required by this paragraph may be provided to the locomotive engineer by any means determined appropriate by the railroad; however, a written or electronic record of the information shall be retained in the cab of the controlling locomotive until the train reaches its destination. The written or electronic record shall contain the date, time, number of freight cars inspected, and identify the qualified person(s) performing the test and the location where the Class I brake test was performed.
- (f) Before adjusting piston travel or working on brake rigging, cutout cock in brake pipe branch must be closed and air reservoirs must be voided of all compressed air. When cutout cocks are provided in brake cylinder pipes, these cutout cocks only may be closed and air reservoirs need not be voided of all compressed air.

[66 FR 4193, Jan. 17, 2001, as amended at 67 FR 17582, Apr. 10, 2002; 73 FR 61553, Oct. 16, 2008]

§ 232.207 Class IA brake tests—1,000-mile inspection.

- (a) Except as provided in §232.213, each train shall receive a Class IA brake test performed by a qualified person, as defined in §232.5, at a location that is not more than 1,000 miles from the point where any car in the train last received a Class I or Class IA brake test. The most restrictive car or block of cars in the train shall determine the location of this test.
- (b) A Class IA brake test of a train shall consist of the following tasks and requirements:
- (1) Brake pipe leakage shall not exceed 5 psi per minute, or air flow shall not exceed 60 cubic feet per minute

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(CFM). The brake pipe leakage test or air flow method test shall be conducted pursuant to the requirements contained in §232.205(c)(1);

- (2) The inspector shall position himself/herself, taking positions on each side of each car sometime during the inspection process, so as to be able to examine and observe the functioning of all moving parts of the brake system on each car in order to make the determinations and inspections required by this section;
- (3) The air brake system shall be charged to the pressure at which the train will be operated, and the pressure at the rear of the train shall be within 15 psi of the pressure at which the train will be operated, but not less than 75 psi, as indicated by an accurate gauge or end-of-train device at rear end of train:
- (4) The brakes on each car shall apply in response to a 20-psi brake pipe service reduction and shall remain applied until the release is initiated by the controlling locomotive. A car found with brakes that fail to apply or remain applied may be retested and remain in the train if the retest is conducted as prescribed in §232.205(c)(4); otherwise, the defective equipment may only be moved pursuant to the provisions contained in §232.15, if applicable:
- (5) Brake rigging shall be properly secured and shall not bind or foul or otherwise adversely affect the operation of the brake system; and
- (6) All parts of the brake equipment shall be properly secured.
- (c) A railroad shall designate the locations where Class IA brake tests will be performed, and the railroad shall furnish to the Federal Railroad Administration upon request a description of each location designated. A railroad shall notify FRA's Associate Administrator for Safety in writing 30 days prior to any change in the locations designated for such tests and inspections.
- (1) Failure to perform a Class IA brake test on a train at a location designated pursuant to this paragraph constitutes a failure to perform a proper Class IA brake test if the train is due for such a test at that location.

(2) In the event of an emergency that alters normal train operations, such as a derailment or other unusual circumstance that adversely affects the safe operation of the train, the railroad is not required to provide prior written notification of a change in the location where a Class IA brake test is performed to a location not on the railroad's list of designated locations for performing Class IA brake tests, provided that the railroad notifies FRA's Associate Administrator for Safety and the pertinent FRA Regional Administrator within 24 hours after the designation has been changed and the reason for that change.

[66 FR 4193, Jan. 17, 2001, as amended at 67 FR 17582, Apr. 10, 2002]

§ 232.209 Class II brake tests—intermediate inspection.

- (a) At a location other than the initial terminal of a train, a Class II brake test shall be performed by a qualified person, as defined in § 232.5, on the following equipment when added to a train:
- (1) Each car or solid block of cars, as defined in §232.5, that has not previously received a Class I brake test or that has been off air for more than four hours:
- (2) Each solid block of cars, as defined in §232.5, that is comprised of cars from more than one previous train; and
- (3) Except as provided in paragraph (a)(4) of this section each solid block of cars that is comprised of cars from only one previous train, the cars of which have not remained continuously and consecutively coupled together with the train line remaining connected since being removed from the previous train. A solid block of cars is considered to have remained continuously and consecutively coupled together with the train line remaining connected since being removed from the previous train if it has been changed only by removing defective equipment.
- (4) Each solid block of cars that is comprised of cars from a single previous train, the cars of which were required to be separated into multiple solid blocks of cars due to space or